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CLAIMS

What is claimed is:

A reagent composition for preparing leukocytes for cytometric analysis,

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- a. a lipoprotein; and
- b. an agent for lysing erythrocytes for permitting cytometric analysis of said leukocytes.

2. A reagent composition for preparing leukocytes for analysis by flow cytometry, comprising:

- a. about 5 to about 100 mg/dl of lipoprotein cholesterol;
- b. about 10 to about 300 mg mg/dl of saponin; and .
- c. about 1 to about 6 gm/dl of a preservative.

An aqueous reagent composition for preparing leukocytes for analysis by flow dytometry, comprising:

- a. about 0.01 to about \$ parts by weight high density lipoprotein;
- b. about 0.1 to about 2 patts by weight of saponin;
- c. up to about 5 parts by weight of diazolidinyl urea; and
- d. about 0.1 to about 2 parts by weight of a halide salt.

A method for preparing a blood sample for fluorescent analysis with a flow cytometer, comprising the steps of:

- a. contacting at least one leukocyte in said blood sample with an aqueous reagent that includes:
 - i. a lipoprotein agent for resisting lysing of white blood cells;

and

- ii. an effective amount of an agent for lysing erythrocytes; and
- iii. a physiologically compatible salt;

b. labeling said at least one leukocyte with a fluorescent label associated with a known antibody;

, c. analyzing said at least one leukocyte with an analytica instrument.

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A system for flow cytometry, comprising:

a. a flow cytometer instrument;



- b. a reagent for preparing leukocytes for analysis by flow cytometry, said reagent including:
 - i. an effective amount of a lipoprotein; and
 - ii. an effective amount of a lytic agent:

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- 6. The composition of claim 1 further comprising a preservative.
- 7. The composition of claim 1 wherein said preservative is a noncoagulative preservative.

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8. The composition of claim, wherein said preservative is selected from the group consisting of diazolidinyl urea (DU), imidazolidinyl urea (IDU), an oxazolidine and mixtures thereof.

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- 15 9. The composition of claim 1 further comprising an effective amount of a physiologically compatible salt.
 - 10. The composition of claim 1 wherein said lipoprotein is a high density lipoprotein.

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- 11. The composition of claim 1 wherein said agent for lysing is saponin.
- 12. The composition of claim 2 further comprising a salt solution.

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- 13. The composition of claim 2 wherein said preservative is selected from the group consisting of diazolidinyl urea (DU), imidazolidinyl urea (IDU), an oxazolidine and mixtures thereof.
 - The composition of claim 13 wherein said preservative is diazolidinyl urea.

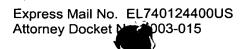
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- 15. The composition of claim wherein said salt solution includes sodium chloride.
 - 16. The composition of claim 12 wherein said salt solution is aqueous.

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- The composition of claim 3, wherein said high density lipoprotein is present in an amount of about 0.1 to about 1 parts by weight.
- 18. The composition of claim 3, wherein said high density lipoprotein is present in an amount of about 0.2 to about 0.5 parts by weight.
 - 19. The composition of claim 3, wherein said saponin is present in an amount of about 0.3 to about 1.5 parts by weight.
- 10 20. The composition of claim 3, wherein said saponin is present in an amount of about 0.5 to about 1 part by weight.
 - 21. The composition of claim 3, wherein said diazolidinyl urea is present in an amount of about 0.5 to about 4 parts by weight.
 - 22. The composition of claim 3, wherein said diazolidinyl urea is present in an amount of about 2 to about 3 parts by weight.
 - 23. The composition of claim 3, wherein said halide salt is sodium chloride.
 - 24. The composition of claim 23, wherein said sodium chloride is present in an amount of about 0.1 to about 2 parts by weight.
- 25. The composition of claim 23, wherein said sodium chloride is present in an amount of about 0.5 to about 1.5 parts by weight.
 - 26. The method of claim 4 wherein said reagent further includes an effective amount of a preservative.
- The method of claim 4 wherein said lipoprotein of said reagent is a high density lipoprotein.
 - 28. The method of claim 4 wherein said labeling step (b) occurs prior to said contacting step (a).



- 29. The method of claim 4 wherein said labeling step (b) occurs after said contacting step (a).
- 30. The method of claim 4 wherein said contacting step (a) occurs at least 24 hours prior to said analyzing step (c).
 - 31. The method of claim 4 wherein said contacting step (a) occurs at least 48 hours prior to said analyzing step (c)1
- 10 32. The method of claim 4 wherein said contacting step (a) occurs at least two weeks prior to said analyzing step (c).
 - 33. The method of claim 4 wherein said instrument is a flow cytometer.
 - 34. The method of claim 4 wherein said instrument is a microscope.
 - The system of claim 5 further comprising a sample preparation instrument.
 - 36. The system of claim 5 further comprising an antibody for binding with a surface antogen of at least one of said leukocytes.
 - 37. The system of claim 36 further comprising a fluorochrome associated with said antibody.
 - 38. The system of claim 36 wherein said antibody is a monoclonal antibody.

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